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BETTER DRIVING

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THE CONTINUING HIGH TOLL of traffic accidents all over the United States is leading to widespread tightening of driver regulations and to tougher enforcement of rules of the road. It is becoming harder to get and keep a driver's license. Stiffer and more comprehensive fitness-to-drive tests are being developed in more and more of the states. More driver training courses are being set up for teen-agers and for chronic traffic offenders. Motorists can look forward to more extensive policing of highways, to wider use of radar and unmarked police cars to clock unsuspecting speeders, to more frequent prosecution of traffic offenders in court, and to a readier disposition on the part of the authorities to suspend or revoke the licenses of drivers who get into trouble.

Safety education campaigns have failed to bring about the hoped-for reduction in traffic accidents. The toll in 1956 was the heaviest in history; ten million accidents killed 40,200 persons, injured 1.4 million more, and caused property losses of $4.7 billion. Last year's four-day Christmas week-end alone took 706 lives. Increased use of automobiles has added nearly 5,000 lives to the annual highway toll since 1954. The death rate in relation to miles traveled, which declined steadily for years, began to level off after 1955.[1] If automobile accidents keep up at the present rate, nearly half a million persons will be killed in traffic, and 16 million injured, during the next ten years.

Traffic experts have come to the conclusion that generalized appeals to drive carefully are not effective, at least not permanently effective. It has been noted, for instance, that on the highly publicized "Safe Driving Day" of Dec. 1, 1955, a total of 69 persons lost their lives in traffic accidents—18 more than the number killed on the same day a year earlier.

[1] The National Safety Council reported on Mar. 29, however, that traffic deaths had decreased for two consecutive months in 1957 for the first time in two years. January fatalities (2,860) showed a decline of 3 per cent, and February fatalities (2,540) a drop of 7 per cent, from totals for the corresponding months of 1956.

That experience led to abandonment of "S-D Day" as an annual feature, but the results have been different when drivers have been led, by education or punishment, to behave better at the wheel. A crackdown on speeders instituted in Connecticut a year and a half ago brought results; suspension of speeders' licenses was credited with saving 38 lives in 1956, which constituted a 12 per cent reduction in highway fatalities.

Demands for Action to Improve Driving Habits

Impetus for a driver improvement program of nation-wide dimensions comes from the highest levels of government—from the President's Highway Safety Committee, which is the unifying force behind all traffic safety activity in the country; from Congress, which last year authorized investigations of the problem by the U.S. Bureau of Public Roads and also by a special subcommittee of the House Interstate Commerce Committee; and from the Governors Conference Committee on Highway Safety. Federal and state agencies are in virtual agreement on a lengthy set of recommendations, developed over the years at highway conferences called by the White House, for dealing vigorously and directly with the motoring public.

They are supported by official or quasi-official bodies such as the American Association of Motor Vehicle Administrators and the International Association of Chiefs of Police. Private groups with special economic or social interests in traffic safety cooperate in the official driver reform movement. Among them are insurance companies; automobile manufacturers and suppliers, safety research agencies, schools and colleges, and civic organizations. The American Bar Association participates by promoting reforms in traffic court procedures. The American Medical Association is active in developing scientific fitness-to-drive standards.[2]

The Governors Conference Committee in its latest report described the traffic accident situation as "a national emergency that demands action on a nation-wide basis." It urged every state to "extend driver improvement activities to the limit of its resources."[3] The President's Highway

[2] At a meeting in Chicago last June, the A.M.A. adopted a resolution recognizing the medical and epidemiological aspects of traffic accidents and urging its members to cooperate with traffic safety agencies.

[3] Governors Conference Committee on Highway Safety, *Highway Safety*, November 1956, p. 1.

Safety Committee endorsed the governors' report and called for a national meeting of public officials late in 1957, to be followed by regional meetings in 1958, to review the status of accident prevention programs and outline future activity. The House Special Subcommittee on Traffic Safety declared in January 1957 that "The need for a national program [to reduce accidents] is obvious." The subcommittee recommended a 19-point program concentrated in large part on driver-improvement activities.

A number of governors last winter directed the attention of state legislators to the need for more stringent motorist control. Gov. Goodwin J. Knight of California said: "We have passed the time for palliatives and well-intentioned persuasion"; Gov. Robert E. Smylie of Idaho: "We must declare unrelenting war on speeders"; Gov. William G. Stratton of Illinois: "The most grievous problem facing the people of Illinois has to do with the unholy butchery . . . on our highways"; Gov. Lane Dwinell of New Hampshire: "Too many people are being killed. . . . It is time for us to get tough."

Human Factor In Automobile Accidents

DRIVER IMPROVEMENT PROGRAMS are based on the conviction that the human factor holds the key to accident reduction. Some authorities go so far as to assert that scarcely more than 15 per cent of all highway accidents can be attributed solely to car failure or road conditions. Some suggest that multi-lane superhighways are an invitation to recklessness and that the modern automobile may be too powerful to entrust to the average motorist.

Relatively little is known of the specific characteristics which make a driver a good or a poor risk on the road. Certain physical and mental deficiencies are obvious handicaps, but there is little conclusive evidence to establish the degree of responsibility for accidents that can be assigned to any specific human disability. Disregard of speed limits and of other traffic regulations figures importantly in serious accidents; according to the National Safety Council, one-third of all drivers involved in fatal accidents were

exceeding safe or legal speed limits and four-fifths of them were violating some traffic rule. The important question, however, is why these drivers—many of them normally responsible, law-abiding citizens—committed such offenses.

Virtually all studies of accident causation point to the need for more research on the human factor. A National Safety Council official told the House subcommittee last summer that "We know more about highways and . . . vehicles than we do about human beings."[4] In an interim report on Jan. 3 the subcommittee said:

> Theories as to causes of bad driving habits are plentiful and suggested remedies are freely offered, but little is known to support or refute these theories or to recommend the proposed remedies. Thus, even the experts can only make guesses as to the parts that speed, alcohol, driver age, skill and other factors play in traffic accidents. . . . Research in driver behavior . . . has been relatively haphazard. . . . This gap in our knowledge must be filled before an adequate traffic safety program can be developed.

A research group at the Harvard School of Public Health, reviewing existing literature on the human factor in automobile accidents, found many of the reports in the field repetitive, superficial, oversimplified, and based too much on "poorly controlled experimental studies."[5]

Until recently it was widely contended that the number of serious traffic accidents could be greatly reduced if "accident-prone" drivers could be identified and banished from the road. The concept originated 30 years ago when studies of industrial accidents showed that a small percentage of workers suffered an inordinate number of accidents. The same theory was applied to investigations of traffic accidents, and efforts were made to link certain human characteristics to accident frequency.

More recent research has disappointed the hopes pinned to this theory. The Harvard research group, after reviewing 1,031 studies made by others, concluded that:

> The fiction of accident-proneness [is] . . . compounded by fallacious reasoning and supported by inadequate or inappropriate statistical procedures. . . . The evidence accumulated so far indicates that only a small proportion of the variation in the distribution of highway accidents among the members of a group

[4] W. G. Johnson, testimony before Special Subcommittee on Traffic Safety of House Commerce Committee, Aug. 9, 1956.

[5] Ross A. McFarland, Roland C. Moore, and A. Bertrand Warren, *Human Variables in Motor Vehicle Accidents* (1955).

> can be attributed to consistent differences between individuals. Further, it cannot be demonstrated . . . whether these differences are in terms of personal characteristics, or of situations regularly associated with specific drivers.

While it might be possible to designate the members of a particular group of drivers as likely to have more accidents than the members of another group, it cannot be determined which individuals in either group are most vulnerable.

The search for scientific criteria which might be effectively applied to driver selection for safety purposes has barely begun. The *Journal of the American Medical Association* pointed out on Jan. 26: "Much more needs to be known about the individual and the inter-relationship of his physical and psychological processes when operating a modern vehicle. . . . Full-scale research, comparable to that being devoted to other major causes of disability, is in order." The A.M.A. has created a Committee on Medical Aspects of Automobile Crash Injuries and Deaths to direct research in this area. Several major investigations of the kind have been launched under other auspices in the hope of discovering distinguishing features of accident-free and accident-repeating drivers.[6]

Role of Physical Defects, Liquor, Tobacco, Drugs

Studies of actual accidents fail to disclose the exact role played by physical deficiencies of the driver; even bad eyesight does not figure importantly in accident data. Young drivers, whose sensory perceptions are most acute and motor responses most swift, have a much worse accident record than older persons whose reactions are slower.[7] Obviously, experience and judgment more than offset physical shortcomings. Many drivers, knowing their own limitations, compensate by driving with greater caution or by refraining from driving under hazardous conditions.

Despite lack of conclusive data, certain physical conditions are considered of clear danger in a driver. The doctor who heads the A.M.A.'s automobile crash committee esti-

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[6] Important results are expected from an intensive investigation of personal factors in relation to traffic accidents now under way at the University of Colorado and at the Fitzsimons Army Hospital in Denver. The Institute of Mental Health of the U.S. Public Health Service last year made a grant of $18,200 to the School of Psychology of George Washington University to plan a study of selected motorists.

[7] Tests of reaction time show no differences from ages 15 to 30, a barely perceptible increase over the next 20 years, and a somewhat sharper increase after age 50. Night vision tests show similar results. American Automobile Association, Traffic Engineering and Safety Department research reports on *Age and Complex Reaction Time* (Nov. 19, 1956) and *Age and the Ability to See at Night* (Mar. 7, 1956).

mates that physical defects—exclusive of fatigue—may account for from 2 to 3 per cent of all deaths and injuries in traffic. Even this small percentage would mean 20,000 deaths and injuries.

The problem is to draw up exact medical criteria which may be fairly applied in licensing drivers, and to develop tests for use in weeding out those who would be a risk at the wheel. The A.M.A. study is concerned particularly with the effects of vision and hearing defects, Meniere's disease (an inner ear disturbance causing dizzy spells), epilepsy and other disorders of the nervous, cardiovascular and musculoskeletal systems, and the use of drugs and alcohol.

An effort to set medical standards for driver fitness was undertaken in May 1956 at a symposium on the medical aspects of motor vehicle accident prevention, which was sponsored by Bellevue Medical Center and the Center for Safety Education of New York University. The group cited a number of medical conditions which should constitute a bar to licensing a motorist. They included cardiovascular conditions (chiefly those which might cause lapses of consciousness or sudden attacks of acute, disabling pain) and such semi-crippling disorders as arthritis which limit movement of the upper back, neck, arms, shoulders, or legs. The World Health Organization, meeting at Geneva last summer, listed 21 physical and mental conditions considered sufficiently incapacitating to interfere with safe driving.

Even healthy persons suffer dangerously lowered efficiency at the wheel under certain conditions. Numerous studies give evidence that insufficient sleep, driving for too long at a stretch, unusual stress and other fatigue-inducing conditions slow up a driver's reactions and impair his judgment. The National Safety Council estimates that one of every 14 drivers involved in fatal accidents is suffering from an accident-inducing physical condition, and that in three-fifths of the cases the driver is simply tired or sleepy. The tired-driver toll in 1955 was estimated at 1,500 dead and 53,000 injured. At its worst, fatigue will cause a driver to fall asleep at the wheel or induce hallucinations (especially at night) which cause him to veer suddenly to avoid a non-existent obstruction.

The drunken driver is a well-known menace, but most drivers fail to realize that even a small amount of alcohol,

well below the level of intoxication, may impair driving efficiency. Of 138 drivers involved in fatal crashes in Delaware in 1955, 56 had been drinking, but only 20 had as much as 0.15 per cent alcohol in the blood. That is the level which is held to give definitive evidence of drunkenness.

Recent scientific reports indicate that excessive smoking adds carbon monoxide to the blood stream, which may cause dizziness or sleepiness or impair vision. The effect may be particularly acute at high altitudes or when driving on congested roads where the atmosphere is heavy with exhaust fumes of slow-moving, close-packed traffic. Use of drugs which induce drowsiness, such as dramamine for motion sickness or anti-histamines for colds, is obviously dangerous for drivers. Even large amounts of aspirin may affect vision and hearing. Doctors now advise persons to refrain from self-medication when driving or about to drive, unless they are certain that the drug taken will not have effects which may interfere with their ability to control the car.

Personality and Traits of the Accident Repeater

On the whole, a driver's personality gives a better clue to his accident potential than does his general physical condition. Psychological defects may be at the root of many accident-producing factors, such as a compulsion to speed, disregard of traffic laws, heavy drinking, even chronic fatigue. Many studies support the thesis that "a man drives as he lives." If an individual is excitable, emotionally unstable, anti-social, selfish, hostile to authority, given to bursts of temper, he is likely to exhibit these traits in traffic to the hazard of others. The Harvard research group noted that "The numbers of accidents sustained by individual drivers seem more closely related to the characteristic way the drivers adjust to the personal and social demands of living than to any specific abilities or defects which have been measured."[8]

A driver's accident proclivities often may be judged more accurately from his personal history than from scores on sensory and motor response tests. Large transport companies place great reliance on personal history and the interview in selecting commercial drivers. Comparisons of accident-repeating and accident-free drivers show more of the former to have suffered disciplinary problems as chil-

[8] McFarland, Moore, and Warren, *op. cit.*, p. 44.

dren and as members of the armed forces (truancy, delinquency, going A.W.O.L.); the accident repeaters changed jobs more frequently, had more difficulty with creditors, got involved in more marital problems.[9]

A number of human traits associated with accidents occur with relative frequency among young drivers.[10] The emotional problem of the young driver is akin to that of chronic speeders and traffic law violators of all ages. Such persons enjoy at the wheel a sense of power and of freedom from the restraints of authority which overcomes caution. Not all young drivers are reckless, but reckless driving is frequently a reflection of an immature personality. The important question is whether the fault is a basic personality defect or is correctable by education.

An even more difficult problem, from the safety standpoint, arises from the fact that virtually every driver, even the most skillful and cautious, is subject occasionally to conditions which make him behave recklessly. "Human psychology which makes everyone careless at times and some irreponsible is a fundamental contributor to accidents." [11] Emotional stress, worry, fatigue, preoccupation, illness, momentary distractions affect all drivers at one time or another. Heavy traffic, lagging cars, rude conduct by others on the road are common irritants which may influence an ordinarily good driver to do something foolish. The great task before safety authorities is to find some way to make the mass of efficient, safe drivers aware of the need for constant watchfulness against the common human frailty which may lead them unpredictably into mishap.

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[9] Studies at the University of Colorado and at Fitzsimons Army Hospital show that the accident-free tend to be more religious, more conformist, more pleasantly disposed toward "authority figures" such as the father.

[10] Whether young people have more accidents per miles driven has not been proved on a national scale, but authorities agree on their accident-proneness as a group. A study at Iowa State College showed an accident rate per 100,000 miles driven of 1.5 for 16-20 year-olds, 1.0 for ages 22-27, 0.7 for ages 28-47, and 0.6 for ages 48-65. Other studies have indicated that drivers in their 20s get into more accidents than teen-agers.

[11] Louis S. Rothschild, Under Secretary of Commerce for Transportation, testimony before House safety subcommittee, July 16, 1956.

Education and Re-Education of Drivers

MAJOR SHORTCOMINGS of motorists which are conducive to accidents include inadequate skill in handling a car in traffic, insufficient knowledge of traffic regulations and safe practice rules, and faulty attitudes which provoke reckless behavior. Considerable hope of overcoming these shortcomings rests in the swiftly growing program of driver instruction for teen-agers. Careful training at that age helps to develop a high level of driver skill and adequate knowledge of traffic rules. It gives also a unique opportunity to instill an appreciation of safety principles in the age group which, when left without training, is least likely to take them seriously.

The tendency is to lodge responsibility for driver training with the public high schools, because they reach the largest number of individuals approaching the legal age for driving. Although some educators object to saddling the school system with this duty, the trend appears fixed.

Growth of Driver-Training in the Public Schools

More than half of the public high schools in the nation, about 10,280, offer some type of driver education to 923,000 pupils. Not all of the schools give complete courses. During the 1955-56 term, 527,000 pupils—approximately one-fourth of those reaching legal driver age—received both classroom and behind-the-wheel instruction; 350,715 in this group received the standard minimum of 30 hours of classroom and six hours of behind-the-wheel training.

A major obstacle to further development of an adequate school program is cost. Although automobiles used in driver training are frequently loaned by local automobile dealers, the training is expensive in terms of teacher-hours per pupil. The average cost, according to the American Automobile Association, is $33.32 per pupil, but in some areas it may run as high as $60 per pupil. Use in the classroom of training devices which simulate actual driving conditions have reduced teacher time per pupil, but these instruments are not yet in wide use.

The most highly developed driver training programs are those given in the eight states (California, Delaware, Flor-

ida, Louisiana, Maine, Michigan, Pennsylvania, Washington) where the training has been authorized by statute and is financed in part by state funds. Michigan grants a subsidy of $25 for each pupil receiving 36 hours of driver training, including pupils from private and parochial schools who take the course at the public institutions. Michigan is unique in requiring all public schools to offer driver training, and in denying drivers' licenses to 16 and 17-year-olds unless they have satisfactorily completed the course.

The Michigan subsidy, recently voted, is expected to cost about $1.5 million a year. The funds are to come from an allocation of 33 1/3 cents from each annual driver's license fee. In California the sum of $1 is added to every fine in motor vehicle cases to maintain a state fund in support of driver education in the schools.

A Michigan spokesman told the House safety subcommittee that "Some source of subsidy money is essential if driver training is to be made universal to all eligible students at the 16-year-old level." Chairman Kenneth A. Roberts (D-Ala.) of the subcommittee suggested that federal aid for driver training might be justified under the Smith-Hughes Act, which authorizes financial assistance for vocational training in the states.

Effects of Training on Teen-Age Safety Records

Attempts to measure the benefits of driver training for teen-agers show different results but in general are favorable to the program. Many automobile insurance companies follow the rule that when a youth under 25 drives the family car, the potential liability is increased by one-fourth or more; however, if the youth has taken a driver-training course in school, the liability is reduced though not eliminated. A recent American Automobile Association report on insurance rates in 14 cities showed that complete coverage in those cities for a married couple more than 25 years of age with no children averaged $107.41; if an 18-year-old son drove the car, the rate jumped to $147.90, unless the boy had completed a high school driving course, which brought a reduction to $138.88.[12]

A current survey of 26 separate studies comparing the

[12] The boost in insurance rates is less for a teen-age daughter. The family rate shown in the A.A.A. study was $122.03 in the case of a daughter without driver training and $117.60 with such training.

records of school-trained and non-trained drivers showed "indisputably that those who have had driver education have better driving records than those who have not . . . [but] the extent to which this particular educational experience was causal . . . has not been so clearly defined." [13] Most studies record fewer accidents or traffic violations among those who have received both classroom and behind-the-wheel instruction than among those who have had less extensive training. The benefits of driver training show up more conclusively among boys than among girls, and they are most noticeable in the early years of driving.[14] The A.A.A. has suggested that pupils' accident records will improve as training courses themselves are improved and teacher qualifications raised. Approximately 260 teacher training institutions now give courses in driving instruction.

Schools and Clinics for Traffic Law Violators

School driver training originated in the conviction that most people learn to drive in far too casual a fashion, and that the bad driving habits of one generation are likely to be passed on to the next. Most motorists are not as competent as they think they are. Trained examiners who conducted a survey of 11,000 drivers, most of them high school pupils, found that they committed a total of 142,695 errors while driving approximately five miles each. If all motorists made mistakes at that rate, they would run up 25,000 errors apiece in a year of driving 10,000 miles. Among the more common faults were failure to look in all directions at uncontrolled intersections, placing hands in an unstable position on the wheel, coasting on downgrades, overrunning crosswalks at stop signs, shifting gears while turning, and failure to signal.[15]

Most drivers are too self-confident to consider themselves candidates for training courses,[16] but many are going to driver school under compulsion. More than 100 communities in at least 30 states have traffic-court schools to which traffic offenders may be assigned. Attendance at the school usually is offered as an alternative to a fine, or

[13] National Commission on Safety Education, National Education Association, *A Critical Analysis of Driver Education Research* (1957), p. 56.

[14] The favorable records of school-trained drivers may be due in part to the fact that potential risk-drivers are not attracted to formal instruction. The Michigan program offers an inducement to this group to take the course.

[15] American Automobile Association, Traffic Engineering and Safety Department, *A Report of Driving Errors* (1956).

[16] Some public schools offer night classes in driver training for adults, either free or for small fees. A survey of 194 volunteer classes by the A.A.A. showed that the average class was attended by 52 women and three men.

it may be required before a suspended license will be restored. In some cases, first-time violators of traffic rules will have their records cleared if they go to school. Explaining the purpose of Chicago's violators' school, the chief justice of that city's municipal court said:

> We know from experience that many drivers don't know the rules of safe driving. We aim to teach them these rules. . . . If they can't learn or refuse to learn, we will then ask that they be ruled off the road. Too many lives are at stake to pamper such drivers.[17]

Typically, a school for traffic violators will offer two-hour classes several evenings a week over a period of a month or two. Instructors may be volunteers or members of the traffic squad. Some schools are open to all. One of the first, established in Washington, D. C., in 1948, dropped the word "violators" from its name so that non-offenders would be encouraged to attend.

Closely allied to the violators' schools are the traffic clinics, where an attempt is made to diagnose the basic troubles of problem drivers and where a form of individual and group therapy is applied. Oakland, Calif., for instance, operates both a violators' school and a traffic clinic; first to third offenders are sent to the school, fourth-time offenders to the clinic. Numerous tests are taken to locate basic faults and to help determine whether they are correctable.

Law Enforcement and Better Driving

MANY STATES are cracking down on chronic violators of traffic regulations in the belief that only swift and sure punishment will make the bad actors behave. Authorities are convinced that sterner laws to control driver performance must be enacted, that traffic departments must be enlarged and given more responsibility, and that highway patrols must be increased, more arrests made, and more cases prosecuted in court. The Governors Conference Committee on Highway Safety said in its report last November: "Proper enforcement is the most immediately productive of the accident preventives. Of all deficiencies, weak en-

[17] Raymond P. Drymalski, quoted in *Chicago Traffic Safety Review*, February 1956.

forcement is most likely to reduce the effectiveness of other elements of a total safety effort."

REDUCTION OF ACCIDENTS BY CURBING SPEEDERS

Insurance company records show that "a crackdown on traffic law violators is always accompanied by a decrease in the accident experience." [18] Numerous instances were cited when the House subcommittee reopened hearings last month. Pennsylvania, by suspending speeders' licenses, reduced highway fatalities by 668 in one year. Plattsburg, N. Y., eliminated them altogether in one year. Oklahoma City, after five years of a rising traffic toll, stepped up police enforcement in 1954 and cut traffic deaths by 41 per cent. In the same year a "get tough" policy in the state of Washington reduced traffic fatalities by 14 per cent, "but the following year the enforcement policy was softened and the net gain was completely wiped out in a few short months."

Inadequate highway patrolling is blamed for the tendency of many motorists to make their own traffic laws as they drive. The combined traffic force of all the states totals 13,200 men, but they work in shifts and no more than about 4,000 of them are available at any one time to patrol 600,000 miles of state roads. "This means that the average rural highway police protection afforded the public throughout the country is one state patrolman for every 150 miles of roadway . . . too little for real protection. There should be at least one patrolman for every 50 miles of rural highway." [19]

A number of governors asked state legislatures this year to expand state highway patrols. Gov. William G. Stratton of Illinois asked for 600 additional men, and Gov. Knight of California for 370. The governors of Arizona, Arkansas, Indiana, and Maryland, among others, stressed the need for larger highway patrol forces. Gov. Orval E. Faubus of Arkansas recommended that the driver's license fee in that state be raised from $1 to $2 to provide funds for 92 additional state policemen.

An increasing number of states are using unmarked

[18] T. N. Boate, Association of Casualty and Surety Companies, testimony before House Special Subcommittee on Traffic Safety, Mar. 26, 1957.

[19] T. N. Boate, testimony before House Special Subcommittee on Highway Safety, Mar. 26, 1957.

police cars to stretch the effectiveness of the highway patrol. A Minnesota traffic official has noted that one marked car deters errant behavior of motorists over a distance of only 1,100 feet, whereas the unmarked car is effective with all drivers who refuse to obey the law "unless a police car is in sight." [20]

Nearly every state now uses radar to check speed on some parts of its highways. Road signs frequently inform motorists that their speed is being clocked, but in some places no warning is given. Objections have been raised to use of secret radar and of unmarked police cars to trap motorists, particularly on stretches of highway where the speed limit is unrealistically low.

Use of Chemical Tests to Combat Drunken Driving

Together with the speeder, the drinking driver is a major target of current enforcement efforts; frequently they are one and the same. The earliest motor vehicle laws stamped drunken driving as a major traffic offense, but courts depended on lay evidence that the motorist staggered, looked bleary-eyed, was incoherent, or otherwise appeared intoxicated. Later, scientific methods for testing the alcoholic content of body fluids developed—including a breath test which can be administered on the spot by a police officer—and legal criteria were established for what constitutes driving under the influence of liquor.

The Uniform Vehicle Code[21] accepts the standard that 0.15 per cent of alcohol in the blood stream (about six beers or six ounces of 100-proof whiskey imbibed by a 150-pounder) constitutes prima facie evidence of being "under the influence"; between 0.5 and 0.15 per cent is not definitive proof but constitutes supportive evidence in court. A person whose blood stream contains less than 0.5 per cent is considered free of alcoholic influence.

All states now use chemical tests to check suspected drivers, but only 22 states have laws which establish rules of evidence according to the model code formula.[22] No state

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[20] Paul M. Marts, "Crackdown or Crack-Up," *Public Safety*, November 1956.

[21] The Uniform Vehicle Code is a model traffic law. Originally drafted in 1926 by a committee appointed by the first national highway safety conference, it is revised from time to time by the National Committee on Uniform Traffic Laws and Ordinances, an arm of the White House Conference on Highway Safety.

[22] Arizona, Delaware, Georgia, Idaho, Indiana, Kansas, Kentucky, Maine, Minnesota, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Oregon, South Carolina, South Dakota, Tennessee, Utah, Virginia, Washington, Wisconsin.

can compel a driver to submit to a chemical test, but three states—Kansas, Idaho, New York—will revoke the license of any driver who refuses to be tested.

The U.S. Supreme Court on Feb. 24 opened the way to compulsory testing of drunken-driver suspects by approving the taking of a blood sample from an unconscious driver involved in a collision in which three women were killed. The 6-3 decision settled a long-standing legal controversy over whether forcible taking of a specimen of body fluids constituted compulsory self-incrimination or search and seizure without due process of law. The Court held that it did not.[23]

Tightening of Licensing Requirements for Drivers

Many safety experts think the initial flaw in official safety controls is the ease with which incompetent or reckless drivers can obtain licenses in the first place. Standard tests scarcely indicate how an applicant will behave under normal driving conditions, nor do they reveal an applicant's attitude toward safe driving rules. Vision tests rarely check depth, night or glare vision. Periodic check-ups of licensees whose efficiency may be impaired by age or illness are not customary.

Criticism has been directed at the tendency to regard licensing as a revenue-raising and driver-identification measure rather than a public safety function. The Eno Foundation for Highway Traffic Control recently listed prevalent shortcomings in driver licensing as inadequate standards in the law, lax administration, political influence in traffic bureaus, and a current notion that driving is a right rather than a privilege.[24] The American Association of Motor Vehicle Administrators has noted that many licensing officials who would like to do a better job are "held back by poor laws, low budgets, political influence and public indifference." [25]

The Uniform Vehicle Code requires that applicants for driving licenses be tested for vision, ability to read and understand traffic signs, knowledge of traffic laws, and

[23] It was the opinion of the three dissenters, including Chief Justice Warren, that "Due process means at least that law-enforcement officers in their efforts to obtain evidence . . . must stop short of bruising the body, breaking skin, puncturing tissue and extracting body fluids, whether . . . by force or by stealth."

[24] Merwyn Kraft, *Driver Control* (1954).

[25] American Association of Motor Vehicle Administrators, *Driver Improvement Through Licensing Procedures* (1956), p. 3.

ability to exercise "ordinary and reasonable control" in operating a car. Only eight states prescribe all four of the foregoing tests by statute. One state, South Dakota, requires no examination at all.

The modern concept of a good license bureau is one which not only tests applicants but also carries on a continuing program of driver improvement. A detailed manual for operating such a service in a licensing agency was issued last year by the Motor Vehicle Administrators; it calls for maintaining extensive files on individual motorists, sending them cautionary letters when necessary, and summoning problem drivers for personal interviews, testing, or re-training.

An essential feature of the driver-improvement function of a licensing agency is that it have broad discretionary powers to restrict, suspend, or revoke licenses, regardless of any mandatory action of this kind that may be required by statute or imposed by the courts in the case of drivers convicted of serious offenses. The idea is that license revocation should be regarded not as a penalty but as a measure of public safety. Only six states give the licensing agency broad authority to withdraw a license whenever it thinks public safety requires such action. Twenty-five other states give the agency authority to exercise revocation powers in certain cases before a driver is convicted of a major offense. Some require that a hearing be held before rather than after a license is taken away.

Value of License Revocation and the Point System

Sentiment in favor of using the license-revocation method of enforcing good driver behavior is growing. No other official action seems to hit home to the erring motorist as effectively. Existing state laws are widely regarded as too lax in this respect. Only 14 states are in full conformity and eight in partial conformity with the Uniform Vehicle Code in making the penalty of license revocation mandatory after final conviction for any of six major offenses. The offenses include manslaughter, driving while drunk or drugged, leaving the scene of an accident prematurely, and a third conviction in 12 months for reckless driving.

The point system, under which motorists who accumulate a stated number of points for traffic violations risk license

suspension or revocation, has been introduced in 15 states.[26] In New York each violation costs a driver one or two points. If six points are marked up in two years, or eight in four years, a driver is cited for hearing to determine whether his license should be suspended or revoked. Nearly 3,000 licenses are taken away each year.

Point systems are frequently revised to increase the pressure on a particular class of offender. Noting that one-fourth of its pedestrian deaths were caused by failure of motorists to give right of way at intersections, Washington, D. C., recently increased the point value for this offense from two (if the pedestrian was not hurt) or three (if the pedestrian was hurt) to five regardless of injury. Accumulation of eight points makes a driver liable to license suspension; 12 points may bring revocation.

The point system effectively reinforces a driver-improvement program, because it serves as a concrete reminder to motorists whose points are approaching the suspension level. Chief obstacle to instituting the system is that it requires a large and well-trained staff to gather and keep records and to carry out driver-help programs. A point system bill, passed by the lower house of the Maryland legislature this year, was set aside after the state's Deputy Commissioner of Motor Vehicles testified that his department had neither space nor personnel to administer the plan.

Need to Increase Public Respect for Traffic Laws

Many safety specialists think the answer to the traffic accident problem does not lie in any one specific program but in a general up-grading of the entire traffic control system. Respect for the law and for the rules of safe driving will not take firm hold, it is argued, until the appropriate governmental agencies are given the status, the authority, the qualified personnel, and the top-level backing which will inspire such respect. A study of the Connecticut traffic control program, prepared at the request of New York officials and released on Oct. 11, 1956, pointed out that Connecticut's war on speeders was simply the latest step in an over-all program which has been successful largely because of a well-financed, fully staffed administra-

[26] Arizona, Connecticut, Indiana, Kentucky, Maine, Massachusetts, Minnesota, Nebraska, New Jersey, New York, Oklahoma, Rhode Island, South Carolina, Washington, Wisconsin, and also the District of Columbia.

tive system, backed by a strong state police organization and the governor's firm support.

The American Bar Association has worked for many years on a program to raise the status and effectiveness of traffic courts by establishing higher standards for selection of traffic judges, freeing court personnel of political influence, ending all forms of ticket-fixing, and improving the atmosphere of traffic courts to engender more respect for the law.

> The traffic courts of America have too long been judicial orphans, presided over by incompetent or indifferent judges who run their courts on a conveyor belt system for revenue purposes to bolster up the sagging finances of the municipality. . . . No pro-tem or part-time judges should ever be allowed [on the traffic court bench.][27]

Uniform traffic laws in all states, including a uniform traffic ticket, are widely regarded as necessary to win greater compliance with safety rules.

How far such measures could bring down the accident toll, in view of anticipated traffic growth, remains to be seen. The fatality rate for each 100 million vehicle-miles has already dropped considerably—from 16.7 in 1934 to 6.4 in 1956. "There is no way to know what might be the irreducible minimum for accidents within the culture of this country . . . which stresses competition . . . prolongs the maturation of the young . . . and perpetuates a kind of pioneer anarchy in which each man feels impelled to judge for himself the equity of a particular law."[28]

Some observers believe the traffic situation is about where industrial accident experience was before governments took the problem seriously enough to require compliance with minimum safety standards. Several witnesses before the House subcommittee suggested that federal funds for construction of the new interstate highway system be withheld from states which fail to enforce safe driving rules. They pointed out that the states are already required to meet safety standards in road design.

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[27] Roger Alton Pfaff, "Uniformity: Greatest Need of Traffic Courts," *Public Safety*, January 1957, p. 17.

[28] National Commission on Safety Education, *Driver Education Research* (1957), p. 56.